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U. S. DEPARTMENT OF AGRICULTURE

TRICHINOSIS

How it affects YOU

How it affects your HOGS

What you can do about it

Trichinosis is a disease that is caused by threadlike worms called trichinae.[1] It is not catching. People get trichinosis when they eat raw or underdone pork that contains trichinae. Few of the millions of hogs killed each year for food have living trichinae in their muscles, but, since there are some, you always should eat only thoroughly cooked pork. Cooking pork until well done kills the worms.

[1] *Trichinella spiralis.*

Leaflet No. 428
U. S. DEPARTMENT OF AGRICULTURE

HOW TRICHINOSIS AFFECTS YOU

Trichinae spend most of their lives curled up inside a membrane or cyst in muscle tissue. When a person eats pork that contains these encysted worms, his digestive juices dissolve the membrane. The worms travel into the intestines, where they grow, mate, and bear young. They are irritating and may cause upset stomach, vomiting, and diarrhea. These symptoms usually appear in 24 to 48 hours.

One mature female worm may give birth to a thousand or more larvae. Eventually the parent worms pass out through the intestines. The young worms get into the blood and are carried to all parts of the body. They invade the muscles, where they grow for about 3 weeks and then coil up. Each one is covered with a membrane, as its parents were in the muscles of the hog.

These thousands of worms traveling through the body may cause illness. The patient may have muscular pain, rising fever, headache, and prostration. After the worms stop in the muscles, other symptoms develop. These may include: Swelling in the face and other parts of the body, sore eyes, hemorrhages under the skin, sore throat, headache, fever, and difficult breathing. Some patients may have symptoms of heart disease or symptoms of brain disorder, such as delirium or coma.

No drug is known that kills trichinae after they enter the blood or are encysted in the muscles. The doctor can treat some symptoms of trichinosis and prevent complications—pneumonia may follow a severe attack. About 5 percent of the people who show symptoms die from trichinosis. Most patients recover, even some who are severely infested.

The number of live trichinae in the pork that is eaten usually determines the seriousness of the disease. Eating moderate amounts of lightly infested pork may cause slight illness or no illness. Eating even small quantities of underdone or raw pork that contain large numbers of trichinae, or large quantities of lightly infested pork, may produce a painful and serious case of trichinosis.

HOW IT AFFECTS YOUR HOGS

Swine get trichinae when they eat scraps of pork or dead pigs, dogs, cats, skunks, rabbits, rats, or mice harboring the worms. Swine may get trichinae if they eat feces passed by animals having intestinal trichinae.

Trichinosis is practically never diagnosed in living swine because other, better-known diseases show similar symptoms.

Within a few days after eating a large quantity of trichinous meat, affected hogs may stop eating, vomit, and have diarrhea. When the young worms invade the muscles, beginning about the second week after infestation, affected hogs often lie motionless. During this stage, hogs may die; however, recovery is the rule unless infestation is severe. Sometimes hogs die of trichinosis without showing any striking symptoms.

After the worms reach the muscles, disease symptoms gradually disappear when infestation is not severe. Animals regain their appetite and apparently recover. The muscles, which undergo important changes when invaded, appear normal to the naked eye when the animal has recovered. Some or all of the symptoms that are seen in severe infestations may be lacking in light infestations.

No effective treatment for trichinosis in swine is known.

WHAT YOU CAN DO ABOUT IT

To Protect Yourself

In packing plants operating under Federal meat inspection, pork products that usually are eaten without cooking by the consumer are processed to kill trichinae—by cooking, special freezing, or special curing. Cooking is the best way to prepare pork products in the home and on the farm.

In cooking pork, remember that large pieces must be cooked longer than small ones because heat penetrates slowly into the center of the meat. Large pieces that are well cooked on the outside may be underdone or raw at the center. Take particular care to cook pork chops well done. A good test for "doneness" of chops and loin roasts is to make small cuts next to the bone and into the thicker part of the meat. If the meat is still pink, it is not well done.

Using a meat thermometer, heat tenderized picnic shoulders to an internal temperature of 170° F., cured hams to 160° F., and fresh pork to 185° F.

Without using a meat thermometer, cook large, thick cuts of pork at least 30 minutes to the pound. Frozen or very cold meat takes longer to cook than meat of room temperature.

Always cook processed sausage unless you are certain that these products were processed, under Federal supervision, to be eaten without cooking. Always cook sausage purchased from farmers and peddlers.

To Protect Your Hogs

To control trichinosis in swine, get rid of the sources of infestation.

About 1 percent of grain-fed hogs are infested with trichinae, while nearly 6 percent of hogs fed uncooked garbage have trichinae. In both groups, though, between 70 and 80 percent of the infested hogs have so few trichinae that they are very little threat to human health.

Cooking garbage intended for feed is now required by law in most States. This should reduce infestation in garbage-fed hogs.

Don't let hogs eat uncooked garbage, raw pork, bones, offal, or the raw flesh of any animal that could have trichinae.

Burn or bury deeply in quicklime all hogs and other animals that die on the farm.

Prepared by Animal Disease and Parasite Research Division, Agricultural Research Service. This Leaflet supersedes Leaflet 34, Trichinosis, A Disease Caused by Eating Raw Pork.

Washington, D. C. Issued December 1957

For sale by the Superintendent of Documents, U S. Government Printing Office
Washington 25, D. C. - Price 5 cents

U. S. GOVERNMENT PRINTING OFFICE 1957—O-439628